Utility of incident and injury surveillance systems for incident and injury risk management in tactical populations

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Utility of Incident & Injury Surveillance Systems for Incident & Injury Risk Management

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PURPOSE: To explore differences between various incident and injury surveillance systems (IISS) in their designs and in the rates of injuries they report for army personnel, and to consider ways to optimise the utility of IISS to inform future efforts to control both cyclical and emergent incident and injury risks.

METHODS: Rates of injury reported for Australian Army personnel based on the Army's Work Health and Safety incident reporting system and rates of injury reported for Australian Army personnel and for US Army personnel based on 'point-of-care' injury surveillance systems were extracted from results of prior research by the authors.[1] Factors affecting the utility of IISS were also ascertained from previous research.

RESULTS: Rates of injury reported for Australian Army personnel based on the Army's Work Health and Safety incident reporting system are substantially lower than rates of injury reported for Australian Army personnel and for US Army personnel based on 'point-of-care' injury surveillance systems.[1] However, the latter do not allow for identification of 'near misses', dangerous exposures, hazards and similar incidents and factors that affect risk but do not result in immediate injury.[1] The utility of IISS is affected by a range of factors, including:[1,2] data structure; data collection approaches; data completeness and integrity; context; organisational culture; communication between stakeholders; and analysis and reporting capabilities and timeliness.

CONCLUSIONS: The utility of IISS is heavily dependent on the system accessibility, analysis and reporting capabilities available in real time to commanders, and on tactical and risk management contexts. When tactical taskings and associated incident and injury risks are cyclical or repeated, well-designed IISS using hybrid data collection approaches will be of high utility for risk management. In tactical units engaged in new and emerging operational contexts, IISS are less useful to inform management of emerging and novel incident and injury risks, and IISS should be supplemented by other key approaches to incident and injury risk identification and assessment, thus bringing together population health and work health and safety approaches to incident and injury risk management.

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